

Title (en)
METHOD, PRODUCT AND APPARATUS

Title (de)
VERFAHREN, PRODUKT UND VORRICHTUNG

Title (fr)
PROCÉDÉ, PRODUIT ET APPAREIL

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Application
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Abstract (en)
A method of friction-stir welding, FSW, a joint J, for example a T joint and/or a lap joint, between a first workpiece W1 and a second workpiece W2, is described. The method comprises: performing a first pass P1 of FSW of the joint J by moving therealong a first tool 10, comprising a first probe 100 rotating in a first rotational direction RD1, in a first movement direction MD1 defining a first line L1, on a first side S1 of the joint J, comprising: inserting the first probe 100 to a first depth D1, thereby providing a first welded region WR1; withdrawing at least partially the first probe 100, thereby providing a first partially welded and/or unwelded region PWUR1; and fully withdrawing the first probe 100, thereby resulting in a first exit hole EXH1; performing a second pass P2 of FSW of the joint J by moving therealong a second tool 20, comprising a second probe 200 rotating in a second rotational direction RD2, in a second movement direction MD2 defining a second line L2, on the first side S1 of the joint J, comprising: inserting the second probe 200 to a second depth D2, thereby providing a second welded region WR2; optionally withdrawing at least partially the second probe 200; and fully withdrawing the second probe 200, thereby resulting in a second exit hole EXH2; wherein the second welded region WR2 includes the first exit hole EXH1; and wherein the second exit hole EXH2 is included in the first welded region WR1.

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• [X] JP 4792271 B2 20111012
• [X] US 2005139640 A1 20050630 - KAY ROBERT M [US]
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CN114939716A; CN115041808A

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